UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,088	07/24/2003	Robert Miller	ROC920030146US1	9967

30206 7590 09/19/2006		EXAMINER	
IBM CORPORATION		BONZO, BRYCE P	
ROCHESTER IP LAW DEPT. 917			
3605 HIGHWAY 52 NORTH		ART UNIT	PAPER NUMBER
ROCHESTER, MN 55901-7829		2113	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 July 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14,19-30 and 35-38</u> is/are rejected.

7)☒ Claim(s) <u>15-18 and 31-34</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 July 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Non-Final Rejection

Status of the Claims

Claims 1-14, 19-30, 35-38 are rejected under 35 USC §102.

Claims 37 and 38 are rejected under 35 USC §101.

Claims 15-18 and 31-34 are objected while containing allowable subject matter.

Rejections under 35 USC §101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 37 and 38 are rejected under 35 U.S.C. 101 because the claim non-statutory subject matter. These claims violate to guidelines in that a) they specifically non-functional code and second they clearly claim non-permissible transmission type media.

Rejections under 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14, 19-30, 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Kampe (United States Patent Application Publication No. 2001/0056451 A1).

As per the claims Kampe discloses:

1. A method of organizing a plurality of members in a primary-backup group in a clustered computer system, the method comprising:

forming a primary subgroup including at least one member from the plurality of members, wherein each member in the primary subgroup has access to a common primary resource (¶25,¶29); and

forming a backup subgroup including at least one member from the plurality of members, wherein each member in the backup subgroup has access to a common backup resource (¶25,¶30).

2. The method of claim 1, further comprising communicating group state information between the plurality of members, the group state information identifying the resources managed by the primary-backup group (¶31).

3. The method of claim 1, further comprising selecting a primary host member for the primary resource from the primary subgroup, and selecting a backup host member for the backup resource from the backup subgroup (¶29).

4. The method of claim 3, further comprising communicating group state information that identifies the primary and backup host members between the plurality of members (¶31).

5. The method of claim 3, further comprising communicating resource configuration data for the primary resource from the primary host member to any other member of the primary subgroup, and communicating resource configuration data for the backup resource from the backup host member to any other member of the backup subgroup (¶31).

6. The method of claim 3, wherein the primary and backup resources each comprise a storage device, the method further comprising, sending a message from the primary host member to the backup host member in connection with initiating mirroring from the primary host member to the backup host member (Figure 2, ¶38).

7. The method of claim 1, further comprising forming a second backup subgroup including at least one member from the plurality of members, wherein each member in the second backup subgroup has access to a common second backup resource (¶30).

8. The method of claim 1, wherein each of the primary and backup resources is selected from the group consisting of storage devices and imaging devices (¶3).

9. A method of joining a member to a primary-backup group in a clustered computer system, the method comprising:

determining to which of a plurality of resources managed by the primary-backup group the joining member has access, the plurality of resources including a primary resource and at least one backup resource (¶34); and

adding the joining member to a subgroup for a resource among the plurality of resources to which the joining member has access, wherein the subgroup is among a plurality of subgroups defined in the primary-backup group, wherein each subgroup is associated with a resource among the plurality of resources, and wherein each member of each subgroup has access to the resource with which such subgroup is associated (¶34).

10. The method of claim 9, wherein determining to which of the plurality of resources the joining member has access includes determining to which of the plurality of resources the joining member is capable of hosting (¶34).

11. The method of claim 9, wherein determining to which of the plurality of resources the joining member has access includes accessing group state information (¶37).

12. The method of claim 9, wherein adding the joining member to the subgroup includes sending a message to the primary-backup group identifying the subgroup to which the

joining member has been added, and whether the joining member is hosting the resource associated with the subgroup (¶34).

13. The method of claim 9, further comprising, if the joining member is not hosting the resource associated with the subgroup, receiving resource configuration data from another member of the subgroup that is hosting the resource (¶37).

14. The method of claim 9, further comprising, if the joining member is hosting the resource associated with the subgroup, sending resource configuration data to each other member of the subgroup (¶34).

19. The method of claim 9, further comprising adding the joining member to a second subgroup for a second resource among the plurality of resources to which the joining member has access (¶34).

20. The method of claim 9, wherein the plurality of resources are selected from the group consisting of storage devices and imaging devices (¶3).

21. A clustered computer system, comprising:

primary and backup resources (figure 2);

a plurality of nodes coupled to one another over a network, at least one node having access to the primary resource, and at least one node having access to the backup resource(Figure 2)); and

program code resident on the plurality of nodes and configured to organize a plurality of members resident on the plurality of nodes into a primary-backup group, the program code configured to organize the plurality of members by forming a primary subgroup including at least one member from the plurality of members and a backup subgroup including at least one member from the plurality of members, wherein each member in the primary subgroup has access to the primary resource, and each member in the backup subgroup has access to the backup resource (¶25, ¶29, ¶30).

22. The clustered computer system of claim 21, wherein the program code is further configured to select a primary host member for the primary resource from the primary subgroup, and select a backup host member for the backup resource from the backup subgroup (¶29, 31, 34).

23. The clustered computer system of claim 22, wherein the program code is further configured to communicate resource configuration data for the primary resource from the primary host member to any other member of the primary subgroup, and communicate resource configuration data for the backup resource from the backup host member to any other member of the backup subgroup (¶31).

24. The clustered computer system of claim 23, wherein the primary and backup resources each comprise a storage device, and wherein the program code is configured to send a message from the primary host member to the backup host member in connection with initiating mirroring from the primary host member to the backup host member (¶31).

25. The clustered computer system of claim 21, further comprising a second backup resource, wherein the program code is configured to form a second backup subgroup including at least one member from the plurality of members, wherein each member in the second backup subgroup has access to the second backup resource (¶30).

26. The clustered computer system of claim 21, wherein each of the primary and backup resources is selected from the group consisting of storage devices and imaging devices (¶3).

Claims 27-30 are rejected in the same manner as method claims 9, 10, 12, 13.

Claims 35 and 36 are rejected in the same manner as the method claims 19 and 20.

Claims 37 and 38 are rejected in the same manner as the method of claim 1.
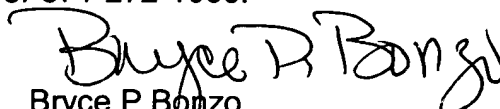
Allowable Matter

Claims 15-18 and 31-34 are objected while containing allowable subject matter. These claims are allowed for their unique requirements relating tot eh joining of a cluster while bringing the resource into the cluster.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P. Bonzo whose telephone number is (571)272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryce P Bonzo

Primary Examiner
Art Unit 2113